

TABLE OF CONTENTS

Part 2	Project Description and Effect Evaluations
Section I	US 151/Verona Road

	Page No. or Following
SUMMARY SHEET I-1 PURPOSE AND NEED	1-1
I-1.1 PURPOSE AND NEED STATEMENT.....	1-1
I-1.2 FACTORS CONTRIBUTING TO THE PROJECT PURPOSE AND NEED	1-3
I-1.3 TRAVEL IMPACTS.....	1-9
SUMMARY SHEET I-2 ALTERNATIVES	1-11
I-2.1 BACKGROUND AND ALTERNATIVES SCREENING.....	1-11
I-2.2 US 151 URBAN ALTERNATIVES	1-12
I-2.3 US 151 FREEWAY ALTERNATIVES.....	1-17
SUMMARY SHEET I-3 AFFECTED ENVIRONMENT	1-25
I-3.1 EXISTING LAND USE IN IMMEDIATE US 151/VERONA ROAD AREA	1-25
I-3.2 EXISTING LAND USE IN AREA SURROUNDING US 151 CORRIDOR	1-26
I-3.3 NATURAL RESOURCES	1-27
I-3.4 SUMMARY OF AREA LAND USE PLANS.....	1-28
SUMMARY SHEET I-4 ENVIRONMENTAL CONSEQUENCES	1-33
I-4.1 SUMMARY OF US 151 DIRECT EFFECTS	1-34
I-4.2 US 151 ALTERNATIVES' TRAFFIC SUMMARY	1-39
I-4.3 US 151/VERONA ROAD CONSTRUCTION AND OPERATIONAL ENERGY	1-43
I-4.4 US 151 ALTERNATIVES' ENVIRONMENTAL COST MATRIX.....	1-44
I-4.5 US 151 ENVIRONMENTAL FACTORS SUMMARY.....	1-45
I-4.6 SUMMARY OF ENVIRONMENTAL ISSUES.....	1-59
I-4.7 US 151/VERONA ROAD ENVIRONMENTAL COMMITMENTS	1-65
I-4.8 DETAILED EVALUATION	1-69
I-A GENERAL ECONOMICS.....	1-70
I-B COMMUNITY AND RESIDENTIAL.....	1-73
I-C ECONOMIC DEVELOPMENT AND BUSINESS	1-115
I-E ENVIRONMENTAL JUSTICE	1-126
I-J EROSION CONTROL.....	1-151
I-K STORMWATER MANAGEMENT	1-155
I-L AIR QUALITY.....	1-160
I-M CONSTRUCTION STAGE SOUND QUALITY	1-163
I-N TRAFFIC NOISE.....	1-165
I-O SECTION 4(F) AND 6(F)	1-171
I-R HAZARDOUS SUBSTANCES AND USTS.....	1-191
I-S AESTHETICS.....	1-192
SUMMARY SHEET I-5 COORDINATION	1-199
I-5.1 AGENCY COORDINATION	1-199
I-5.2 LOCAL GOVERNMENT COORDINATION	1-205
I-5.3 PUBLIC INVOLVEMENT	1-207
I-5.4 ENVIRONMENTAL JUSTICE.....	1-211

TABLE OF CONTENTS, Continued

Page No.
or Following

LIST OF FIGURES

PART 2 DETAILED PROJECT DESCRIPTIONS AND EFFECT EVALUATION

SECTION I US 151/VERONA ROAD

I-1.1-1	Study Corridor Location	1-1
I-1.2-1	US 151 Historic Traffic – South of US 151-US 12/14 Interchange.....	1-3
I-1.2-2	Aerial Photographs of the US 151/Verona Road Area	1-4
I-1.2-3	Project Traffic Volumes	1-4
I-1.2-4	System Interchange Footprints.....	1-5
I-1.2-5	System Interchange Ramp Volumes	1-5
I-1.2-6	1999 US 151/North Verona Road Levels of Service	1-6
I-1.2-7	2020 Constrained (Low) MPO Projections North of Verona Road Levels of Service.....	1-6
I-1.2-8	1999 South US 151/Verona Road Levels of Service	1-7
I-1.2-9	US 151 Northbound Right Lane Queuing During Morning Rush Hour.....	1-7
I-1.2-10	2020 Constrained MPO (Low Volume) South Verona Road Levels of Service	1-7
I-1.2-11	US 151/Verona Road Crashes – 1997 to 1999.....	1-8
I-1.2-12	Pedestrian Crossing of US 151 Will Grow More Difficult.....	1-9
I-2.1-1	Evolution of US 151/Verona Road Transportation Alternatives	1-11
I-2.2-1	Single-Point Interchange Concept.....	1-13
I-2.2-2	Artist Rendering of Single-Point Interchange	1-13
I-2.2-3	Chalet Gardens Area Access Change.....	1-14
I-2.2-4	Carriage Street Access Change	1-14
I-2.2-5	US 151/Verona Road Urban Roadway Alternative	1-15
I-2.2-6	Potential Improvements to Midvale Boulevard/Nakoma Road Intersection	1-15
I-2.2-7	Bicycle/Pedestrian Facilities in the US 151 Urban Roadway Alternative	1-16
I-2.2-8	US 151 Urban Roadway Alternative – Plan View.....	1-16
I-2.3-1	US 151 Freeway Alternative – Plan View.....	1-16
I-2.3-2	Freeway Alternative – Freeflow Interchange.....	1-17
I-2.3-3	Verona Road Freeway Alternative - Freeflow Interchange	1-17
I-2.3-4	Freeway Alternative – Raymond Road Connection and Southwest Bike Overpass (looking North).....	1-17
I-2.3-5	Freeway Alternative (Alternative 4)	1-18
I-2.3-6	Local Ramps in Freeway Alternative	1-19
I-2.3-7	Raymond Road Extension.....	1-19
I-2.3-8	Changed Chalet Gardens Area Access.....	1-20
I-2.3-9	County PD Interchange	1-21
I-2.3-10	Bicycle/Pedestrian Facilities in the US 151 Freeway Alternative with Raymond Road Extension.....	1-22
I-3.1-1	Existing Land Use near US 151 Interchange and Corridor	1-25
I-3.1-2	Existing Land Use for US 151/Verona Road Corridor from US 12/14 Interchange to County PD	1-26
I-3.1-3	Existing Land Use on Lower Portion of US 151 Corridor	1-26
I-3.4.2-1	Possible Cross Section at Britta Parkway (Looking West)	1-29
I-3.4.2-2	Raymond Road Extension Coupled with Area Redevelopment.....	1-30
I-3.4.2-3	Preliminary Allied Drive Redevelopment Concepts (9/03)	1-31

TABLE OF CONTENTS, Continued

Page No.
or Following

LIST OF FIGURES (CONTINUED)

PART 2 DETAILED PROJECT DESCRIPTIONS AND EFFECT EVALUATION

SECTION I US 151/VERONA ROAD

I-4.2.3-1	Alternatives' Influence on Traffic Volumes as Compared to No Build	1-41
I-4.2.3-2	Projected 2020 Traffic Volumes – US 151 No Build Alternative (Base Network) ..	1-42
I-4.2.3-3	Projected 2020 Traffic Volumes – US 151 No Build Alternative (Base Network) ..	1-42
I-4.2.3-4	Projected 2020 Traffic Volumes – US 151 Urban Roadway Alternative (Alternative 1)	1-42
I-4.2.3-5	Projected 2020 Traffic Volumes – US 151 Urban Roadway Alternative (Alternative 1)	1-42
I-4.2.3-6	Projected 2020 Traffic Volumes – US 151 Freeway Alternative (Alternative 4)	1-42
I-4.2.3-7	Projected 2020 Traffic Volumes – US 151 Freeway Alternative (Alternative 4)	1-42
I-B.1-1	Areas Affected by Verona Road Improvement Alternatives	1-74
I-B.2-1	Traffic Volumes in US 151 Corridor Neighborhood Areas	1-77
I-B.2-2	Madison Metro Whitney Way-Reetz-S. Frontage Road Route 18 in US 151/ Verona Road Corridor	1-79
I-B.2-3	Madison Metro Odana-Midvale-Beltline Route 18 in US 151/Verona Road Corridor	1-79
I-B.2-4	Madison Metro Route 19 in US 151/Verona Road Corridor	1-80
I-B.2-5	Madison Metro Route 56 in US 151/Verona Road Corridor	1-80
I-B.2-6	Bicycle Routes or Lanes in the Neighborhood Areas Affected by Verona Road Improvements	1-81
I-B.2-7	Existing Pedestrian Facilities in the US 151/Verona Road Corridor Area	1-81
I-B.4.1-1	Potential Improvements to Midvale Boulevard/Nakoma Road Intersection	1-83
I-B.4.1-2	Extended Frontage Road	1-84
I-B.4.2-1	Single-Point Interchange	1-84
I-B.4.2-2	West Frontage Road Modification	1-85
I-B.4.2-3	East Frontage Road Modification	1-85
I-B.4.2-4	Chalet Gardens Area Access Change	1-86
I-B.4.2-5	Carriage Street Access Change	1-86
I-B.4.2-6	Bicycle/Pedestrian Facilities in the US 151 Urban Roadway Alternative	1-87
I-B.4.3-1	East Frontage Road Realignment	1-88
I-B.4.3-2	Changed Chalet Gardens Access	1-89
I-B.4.3-3	Raymond Road Extension	1-90
I-B.4.3-4	Bicycle/Pedestrian Facilities in the US 151 Freeway Alternative with Raymond Road Extension	1-90
I-B.4.3-5	Southwest Bike Overpass – Possible Entrance Feature	1-91
I-B.5.2-1	Possible Local Street Traffic Volume Changes	1-94
I-B.5.2-2	Effects of US 151/Verona Road Urban Roadway Alternative on Route 18	1-96
I-B.5.3-1	Effects of US 151/Verona Road Freeway Alternative on Whitney Way-Reetz-S. Frontage Road Route 18	1-97
I-B.5.3-2	Effects of US 151/Verona Road Freeway Alternative on Odana-Midvale-Beltline Route 18	1-98
I-B.6-1	Possible Cross Section at Britta Parkway (Looking West)	1-99
I-B.6-2	Raymond Road Extension Coupled with Area Redevelopment	1-100
I-B.6-3	Preliminary Allied Drive Redevelopment Concepts (9/03)	1-101

TABLE OF CONTENTS, Continued

Page No.
or Following

LIST OF FIGURES (CONTINUED)

PART 2	DETAILED PROJECT DESCRIPTIONS AND EFFECT EVALUATION	
SECTION I	US 151/VERONA ROAD	
I-B.7.2-1	Urban Roadway Alternative Emergency Service Access Changes	1-102
I-B.7.2-2	Freeway Alternative with Raymond Extension Emergency Service Access Changes.....	1-103
I-E.1-1	Areas Affected by Verona Road Improvement Alternatives	1-126
I-E.5-1	Possible Cross Section at Britta Parkway (Looking West)	1-136
I-E.5-2	Raymond Road Extension Coupled with Area Redevelopment.....	1-137
I-E.5-3	Preliminary Madison Plaza Redevelopment Concepts (9/03).....	1-138
I-E.5-4	Chalet Gardens Area Access Change in Urban Roadway Alternative.....	1-141
I-E.5-5	Chalet Gardens Area Access Change in Freeway Alternative.....	1-142
I-E.5-6	Raymond Road Extension.....	1-142
I-E.5-7	Possible Doncaster Park 4(f) Mitigation in Urban Roadway Alternative	1-144
I-E.5-8	Alternate Park Locations	1-144
I-E.5-9	Possible Britta Parkway 4(f) Mitigation in the Freeway Alternative	1-145
I-E.5-10	Possible Doncaster Park 4(f) Mitigation in the Freeway Alternative	1-145
I-K.3-1	US 151 Freeway Alternative (Alt. 4) Stormwater Requirements	1-157
I-L.2.1-1	Receptor Locations for US 151/Verona Road Air Analysis	1-160
I-L.2.1-2	US 151 Alternative Comparison of CO Concentrations for the 1-hour standard, year 2015	1-162
I-L.2.1-3	US 151 Alternative Comparison of CO Concentrations for the 1-hour standard, year 2025	1-162
I-L.2.1-4	US 151 Alternative Comparison of CO Concentrations for the 8-hour standard, year 2015	1-162
I-L.2.1-5	US 151 Alternative Comparison of CO Concentrations for the 8-hour standard, year 2025	1-162
I-L.3-1	Letter of Concurrence from WDNR Bureau of Air Management	1-162
I-N.3-1	Noise Receptor Location Map (Freeway Alternative).....	1-166
I-N.3-2	Noise Receptor Location Map (Urban Roadway Alternative).....	1-166
I-N.3-3	Noise Receptor Location Map – Freeway Alternative	1-166
I-N.3-4	Noise Receptor Location Map – Urban Roadway Alternative	1-166
I-N.3-5	Noise Receptor Location Map – US 151/Verona Road.....	1-166
I-N.3-6	Noise Receptor Location Map – US 151/verona Road	1-166
I-N.6-1	Reasonable and Feasible Locations for Noise Abatement in the US 151 Urban Roadway Alternative.....	1-168
I-N.6-2	Reasonable and Feasible Locations for Noise Abatement in the US 151 Freeway Alternative.....	1-169
I-O.14-1	Project and Unique Area Locations	1-173
I-O.15-1	Urban Roadway Alternative - City of Madison Parks Department Statement.....	1-174
I-O.15-2	Freeway Alternative - City of Madison Parks Department Statement.....	1-174

TABLE OF CONTENTS, Continued

Page No.
or Following

LIST OF FIGURES (CONTINUED)

PART 2	DETAILED PROJECT DESCRIPTIONS AND EFFECT EVALUATION	
SECTION I	US 151/VERONA ROAD	
I-O.16.1-1	Effects of US 151 Urban Roadway Alternative on Doncaster Park.....	1-174
I-O.16.1-2	Effects of US 151 Freeway Alternative on Britta Parkway	1-175
I-O.16.1-3	Effects of US 151 Freeway Alternative on Doncaster Park.....	1-175
I-O.16.2-1	Urban Roadway Alternative 4(f) Avoidance Scenarios	1-177
I-O.16.2-2	Freeway Alternative Britta Parkway 4(f) Avoidance Scenarios	1-178
I-O.16.2-3	Freeway Alternative 4(f) Avoidance Scenarios	1-179
I-O.17-1	Possible Doncaster Park 4(f) Mitigation in Urban Roadway Alternative	1-184
I-O.17-2	Alternate Park Locations	1-184
I-O.17-3	Possible Britta Parkway 4(f) Mitigation in the Freeway Alternative	1-186
I-O.17-4	Possible Doncaster Park 4(f) Mitigation in the Freeway Alternative	1-187
I-S.2-1	Freeflow Interchange Perspective View (Alternative 4).....	1-192
I-S.2-2	US 151 Freeway Alternative (Alt. 4) Looking North at Raymond Road	1-193
I-S.2-3	County PD Diamond Interchange.....	1-193

TABLE OF CONTENTS, Continued

Page No.
or Following

LIST OF TABLES

PART 2	DETAILED PROJECT DESCRIPTIONS AND EFFECT EVALUATION	
SECTION I	US 151/VERONA ROAD	
I-3.4.1-1	Adopted Land Use Plans for US 151 Area.....	1-28
I-4.1-1	US 151 Alternatives' Right-of-Way Effects.....	1-35
I-4.1-2	US 151 Alternatives' Cost Impacts.....	1-38
I-B.1-1	US 151/Verona Road Affected Area.....	1-74
I-B.1-2	Demographic Profile of Neighborhood Areas Affected by Verona Road Improvement Alternatives.....	1-75
I-B.1-3	Employment Status in Neighborhood Areas Affected by Verona Road Improvement Alternatives.....	1-76
I-B.1-4	Minority Population Composition in Neighborhood Areas Affected by Verona Road Improvement Alternatives.....	1-76
I-B.2-1	Vehicles Available by Occupied Housing Unit Tenure for the Neighborhood Areas Affected by Verona Road Improvement Alternatives.....	1-78
I-B.5.2-1	Effects of US 151/Verona Road Alternatives on Madison Metro Route 18.....	1-95
I-B.8-1	Community/Neighborhood Facilities Affected by the Alternatives.....	1-104
I-B.9-1	Effect of US 151 Alternatives of Specified Populations.....	1-106
I-B.10-1	Residential Building Effects of US 151 Alternatives.....	1-107
I-B.11-1	Number of Households and Housing Characteristics Affected by US 151 Alternatives.....	1-108
I-B.12-1	Community Relocation Potential.....	1-110
I-B.14-1	Relocated Households with Special Characteristics.....	1-111
I-C.5-1	Effect of US 151 Alternatives on Specified Populations.....	1-120
I-C.6-1	Created or Displaced Businesses and Jobs.....	1-121
I-C.7-1	Community Business Relocation Potential.....	1-122
I-C.9-1	Characteristics of Created or Displaced Businesses or Employees.....	1-123
I-E.1-1	Demographic Profile of Neighborhood Areas Influenced by Verona Road Improvement Alternatives.....	1-127
I-E.2.1-1	Demographic Profile of Black Population Affected by Verona Road Improvement Alternatives.....	1-128
I-E.2.2-1	Demographic Profile of Hispanic-Latino Population Affected by Verona Road Improvement Alternatives.....	1-129
I-E.2.3-1	Demographic Profile of Asian Population Affected by Verona Road Improvement Alternatives.....	1-130
I-E.2.4-1	Demographic Profile of American Indian and Alaska Native (AIAN) Population Affected by Verona Road Improvement Alternatives.....	1-131
I-E.2.5-1	Demographic Profile of Nonminority Population Affected by Verona Road Improvement Alternatives.....	1-132
I-E.5-1	US 151 Alternatives' Residential Relocations.....	1-139
I-E.5-2	Characteristics of US 151 Alternatives' Residential Relocations.....	1-139
I-E.5-3	US 151 Alternatives' Business Relocations.....	1-140
I-E.6-1	Summary of Actions Used to Avoid, Minimize, or Mitigate Effects to Title VI Individuals.....	1-146
I-E.7-1	Summary of Dismissed US 151 Alternatives.....	1-150

TABLE OF CONTENTS, Continued

Page No.
or Following

LIST OF TABLES (CONTINUED)

PART 2	DETAILED PROJECT DESCRIPTIONS AND EFFECT EVALUATION	
SECTION I	US 151/VERONA ROAD	
I-L.2.1-1	Carbon Monoxide Concentrations for Urban Roadway Alternative (Alt. 1)	1-162
I-L.2.1-2	Carbon Monoxide Concentrations for Freeway Alternative (Alt. 4)	1-162
I-M.2-1	Construction Equipment Sound Levels	1-164
I-N.3-1	US 151 Beltline Interchange Noise Analysis- Freeway Alternative – Northeast and Southeast Quadrants	1-166
I-N.3-2	US 151 Beltline Interchange Noise Analysis – Urban Roadway Alternative - Northeast and Southeast Quadrants.....	1-166
I-N.3-3	US 151 Beltline Interchange Noise Analysis - Urban Roadway and Freeway Alternatives - Northwest Quadrant	1-166
I-N.3-4	US 151/Verona Road Noise Analysis – Urban Roadway and Freeway Alternatives - Raymond Road to Williamsburg Way.....	1-166
I-N.3-5	Comparative Sound Levels	1-166
I-N.6-1	Noise Abatement Cost Summary for Urban Roadway Alternative	1-169
I-N.6-2	Noise Abatement Cost Summary for Freeway Alternative	1-170
I-O.16.2-1	Summary of Dismissed US 151 Alternatives.....	1-181
I-O.16.3-1	4(f) Feasible And Prudent Evaluation - Urban Roadway Alternative - Doncaster Park	1-182
I-O.16.3-2	4(f) Feasible And Prudent Evaluation - Freeway Alternative - Britta Parkway	1-183
I-O.16.3-3	4(f) Feasible And Prudent Evaluation - Freeway Alternative -Doncaster Park	1-183
I-O.17-1	Summary of Possible 4(f) Land Mitigation in Urban Roadway Alternative.....	1-185
I-O.17-2	Summary of Possible 4(f) Land Mitigation in Freeway Alternative	1-188
I-5.1.2-1	Summary of Interagency Coordination	1-200
I-5.2.1-1	Local Governments Contacted	1-205
I-5.3.1-1	US 151 Public Involvement Meetings.....	1-207
I-5.4.1-1	Presence of Minority or Low-Income Populations	1-211
I-5.4.2-1	Presence of Elderly Population or Population with Disabilities	1-211
I-5.4.3-1	Data Sources Used.....	1-211
I-5.4.4-1	Information Dissemination Methods	1-212
I-5.4.5-1	Input Gathering Methods	1-212
I-5.4.6-1	Special Provisions Offered	1-213